



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,071	10/12/2004	Steven Victor Jones	BR8812	7044
76237	7590	12/16/2008	EXAMINER	
Harness Dickey & Pierce, P.L.C. P.O. Box 828 Bloomfield Hills, MI 48303				REESE, DAVID C
ART UNIT		PAPER NUMBER		
3677				
			MAIL DATE	DELIVERY MODE
			12/16/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/511,071	JONES, STEVEN VICTOR	
	<b>Examiner</b>	<b>Art Unit</b>	
	David C. Reese	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 24 November 2008.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3,5,7,8,10,21-28 and 30 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-3,5,7,8,10,21-28 and 30 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

## **DETAILED ACTION**

THIS FINAL ACTION IS RESPONSIVE TO THE AMENDMENT FILED 11/24/2008.

- Claims 4, 6, 9, 11-20, and 29 were canceled.
- Claims 1, 5, and 21 were amended.
- Claims 1-3, 5, 7-8, 10, and 21-28, and 30 are pending.

### *Claim Objections*

[1] Claim(s) were previously objected to because of informalities. Applicant has successfully addressed these issues in the amendment filed on 11/24/2008. Accordingly, the objection(s) to the claim(s) have been withdrawn.

### *Claim Rejections - 35 USC § 103*

[2] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[3] Claims 1-3, 5, 7-10, 21-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huck, US-2,030,169, in view of Palm, US-5,183,357.

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claim 1, Huck teaches of a blind rivet assembly for setting in relatively soft material, said rivet assembly comprising:

an elongate tubular body (10) having a shank about a shank axis and preformed head (11) at first end thereof and an expandable portion (12) having a smooth interior at opposite end of the shank remote from the head,

a mandrel (14) having a substantially smooth stem extending through and coaxial with said tubular body (10), said stem having a first portion having a first generally constant diameter, and a second portion having a second generally constant diameter greater than the first diameter, said mandrel further having a head (14) and a breakneck (at 24) adjacent the second section and a maximum external diameter greater than the internal diameter of the body (14), said head (14) having a shoulder (15) portion, said shoulder portion being perpendicular to the stem adjacent the first portion.

The difference between the claim and Huck is that Huck does not expressly state that of said expandable portion defining three through slots, said slots terminate remote from said first end, said slots defining a single triangular aperture having flat sides and wherein at least one of said three slots increases in width in a radial direction as it extends from tubular body outer surface to inner surface of said shank, and wherein the substantially flat sides tangentially engage the mandrel. Palm discloses a Rivet fastener similar to that of Huck including that of a mandrel with stem, head, as well as a tubular body with a head and expandable portion. In addition, Palm further teaches of said expandable portion defining three through slots (figs. 9 or 14 of Palm), said slots terminate remote from said first end, said slots defining a single triangular aperture having flat sides (the triangle does indeed have flat sides, just not along the entire length of each

side) and wherein at least one of said three slots increases in width in a radial direction as it extends from tubular body outer surface to inner surface of said shank, and wherein the substantially flat sides tangentially engage the mandrel (figs. 9 or 14 of Palm). It would have been obvious to one of ordinary skill in the art, having the disclosures of Huck and Palm before him at the time the invention was made, to modify the expandable portion of the tubular body of Huck to include three slots [with the slot/tubular body structure as articulated above], as in Palm. One would have been motivated to make such a combination because such a modification to the expandable portion of the tubular body allows for a very good rivet connection as well as reducing the force needed to generate this rivet connection, as well as equal distribution of the expandable portion outward against a component, as taught by Palm (see summary of the invention). Further, it would have been obvious to a person of ordinary skill in the art to have modified the expandable portion of the tubular body as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, because the slots as claimed has the properties predicted by the prior art of Palm, it would have been obvious to make the modification to the expandable portion of Huck in order to gain the commonly understood benefits and applications of such an adaptation and/or modification including that of increasing the presence of the rivet connection and making it easier for the user when using said rivet connection unit (due to the requirement of less force).

Re: Claim 2, Palm teaches wherein the substantially flat sides are convex (see figs. 9 and 14).

Re: Claim 3, Palm teaches wherein each of said slots are equally spaced about the circumference of said tubular body so that the angular displacement between adjacent slots about the shank axis is constant (see figs. 9 and 14).

Re: claims 5 and 25, Palm teaches of the slots having a radially inclined axial inner end so it is longer adjacent said inner surface than said outer surface of tubular body (fig. 5).

Re: claims 7-8 and 27-28, Huck discloses wherein the wall thickness and external diameter of said tubular body (10) are constant along axial length of body (10).

Re: claims 9 and 29, Huck discloses wherein said mandrel stem (14) has a reduced diameter section adjacent said shoulder (15), said reduced diameter section (15) having a circular cross-section.

Re: claims 10 and 30, Huck discloses wherein said maximum diameter of the mandrel head (14) is equal to the diameter of said tubular body (10).

As for claim 21, Huck as modified by Palm teach of a blind rivet assembly for setting in relatively soft material, said rivet assembly comprising:

an elongate tubular body (10) disposed about a body axis and a head (11) at a first end thereof and an expandable portion (12) at an opposed end of the body remote from the head and said expandable portion having a smooth interior and defining a plurality of through slots (in view of Palm), said slots terminating remote from said first end, said slots defining a singular triangular aperture having flat sides; and

a mandrel (14) having a substantially smooth stem with a break-neck portion (18), said stem extending through and co-axial with said tubular body (10), said mandrel further having a head (14) having a maximum external diameter greater than the internal diameter

of the body (10), said head having a shoulder portion engagement surface (15), said shoulder portion engagement surface (15) being perpendicular to the stem,

wherein at least one of said plurality of slots increases in width in a radial direction as it extends from an outer surface of the tubular body to an inner surface of said shank (in view of Palm), and wherein the substantially flat sides tangentially engage the mandrel (in view of Palm), said mandrel stem having a reduced diameter section adjacent said shoulder engagement surface (15), said reduced diameter section having a generally constant circular cross-section.

Re: claim 24, Palm teaches wherein the flat sides are planar (Fig 9 and 14).

Re: claim 26, Palm teaches wherein the opposed end defines a flat bearing surface engaged with the shoulder portion engagement surface.

#### ***Response to Arguments***

[4] Applicant's amendments and arguments filed 11/24/2008 regarding rejections under 35 U.S.C. 103 have been fully considered but they are not persuasive. The examiner maintains that the prior art as described and shown above remains obvious in view of the current amended listing of the claims. More specifically, the examiner maintains that Huck, the primary reference does indeed disclose of an expandable portion having a smooth interior; Palm was not used to show this feature. Further, with regard to the amendments to the slots, the examiner maintains that Palm does indeed disclose of through slots defining a singular triangular aperture having flat sides; the fact that they may not be flat along the entire length of the sides does not preclude them (with regard to the current claim listing) from reading onto the limitation of the aperture having flat sides. Applicant is reminded that claims in a pending application should be given

their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA 1974), and that things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. *In re Mraz*, 173 USPQ 25 (CCPA 1972).

### ***Conclusion***

**[5] THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**[6]** Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached at (571) 272-6987. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese

/D. C. R./  
Examiner, Art Unit 3677

/Victor Batson/  
Supervisory Patent Examiner, Art Unit 3677